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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/888,541	06/26/2001	Motohiro Nakamaki	KYO-100	9359
24956 7590 04/30/2007 MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C. 1800 DIAGONAL ROAD SUITE 370 ALEXANDRIA, VA 22314			EXAMINER MILIA, MARK R	
			ART UNIT 2625	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/888,541

Applicant(s)

NAKAMAKI ET AL.

Examiner

Mark R. Milia

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 and 20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/26/07 has been entered. Currently, claims 1-18 and 20 are pending.

Response to Arguments

2. Applicant's arguments, see pages 12 and 13, filed 1/26/07, with respect to the rejection(s) of claim(s) 1, 18, and 20 under 35 U.S.C. 102(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of a different interpretation of a previous cited prior art reference.

However, regarding the arguments pertaining to claim 3, as set forth on page 14, the examiner respectfully disagrees that the reference of Kashiwazaki does not disclose a read-out position changing section. Kashiwazaki does disclose such a feature as shown in column 5 lines 35-64 and Fig. 4. The reference shows that after a control data

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command, such as a cancel command, is executed the analyzer moves on to the next set of control and print commands.

Regarding the arguments pertaining to claim 6, as set forth on page 14, the examiner respectfully disagrees that the reference of Kashiwazaki does not disclose a main task and does not cancel printing based on the print data received prior to the cancel command when the cancel command is found. Kashiwazaki does disclose such features. Particularly, the job controller "306" analyzes control data and when a command for the deleting of a print job is found the system located the print job associated with the control data and then executes the command (see column 4 line 25- column 5 line 64 and column 7 lines 7-13). Further, Kashiwazaki also discloses that a delete command can be entered after the print data to which it is associated with and the control command will be read and executed on the correct print job prior to the print job being executed (see column 6 lines 5-67).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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4. Claims 1, 4, 5, 18, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6285459 to Koakutsu et al.

Regarding claim 1, Koakutsu discloses a printer comprising a receiving buffer in which received print data and data are stored therein without analysis as received data in the order of control receipt (see Figs. 1 and 2, column 3 lines 55-63, and column 5 lines 60-64), an executing section configured to read the received data from the receiving buffer in the order of storage, and develop the received data into an image if the received data is the print data and execute a control command if the received data is a control command of the control data (see column 4 lines 4-55 and column 6 lines 1-12 and 29-49), and a pre-processing section configured to pre-read the received data stored in the receiving buffer before the executing section reads the received data and, when a specific control command of the control data from the pre-read received data is found, the pre-processing section executes a procedure corresponding to the detected control command prior to the executing section (see column 6 lines 29-49).

Regarding claims 18 and 20, Koakutsu discloses a printer control method and computer-readable medium storing a program comprising the steps of: storing received print data and received control data as received data in a receiving buffer located within the printer in the order of receipt without analysis of the data (see Figs. 1 and 2, column 3 lines 55-63, and column 5 lines 60-64), reading the received data out of the receiving buffer in the order of storage (see column 4 lines 4-9), developing the print data into an image if the received data is the print data (see column 4 lines 10-18 and 31-40 and column 6 lines 46-49), executing a control command if the received data is a control

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command of the control data (see column 6 lines 1-7 and 29-45), pre-reading the received data stored in the receiving buffer prior to reading the received data, pre-executing procedure corresponding to a specific control command prior to the executing of the specific control command if the specific control command of the control data is detected by the pre-reading (see column 6 lines 29-49).

Regarding claim 4, Koakutsu further discloses a rewrite section which functions, when the pre-processing section has executed the specific control command of the control data, to rewrite a no-operation command into the portion of the executed control command in the receiving buffer (see column 4 lines 41-55 and column 6 lines 29-58).

Regarding claim 5, Koakutsu further discloses wherein the printer has only one logic channel for receiving the print data and the control data from a computer (see Fig. 1).

Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koakutsu as applied to claim 1 above, and further in view of Kashiwazaki (US 6570605).

Regarding claim 2, Koakutsu does not disclose expressly wherein the specific control command is a cancel command for canceling the print based on the print data received prior to the specific control command.

Kashiwazaki discloses wherein the specific control command is a cancel command for canceling the print based on the print data received prior to the specific control command (see column 5 lines 26-28), and when the pre-processing section finds the cancel command, the pre-processing section executes the cancel command prior to the executing section (see column 4 lines 25-43).

Koakutsu & Kashiwazaki are combinable because they are from the same field of endeavor, print control utilizing print data control commands.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the control cancel command, as described by Kashiwazaki, with the system of Koakutsu.

The suggestion/motivation for doing so would have been to ensure that a print job a user wishes to cancel is not printed and therefore there is no unnecessary waste of resources (i.e. paper, toner/ink, etc.).

Therefore, it would have been obvious to combine Kashiwazaki with Koakutsu to obtain the invention as specified in claim 2.

Regarding claim 3, Kashiwazaki further discloses a read-out position changing section which functions, when the pre-processing section has executed the cancel command, such that the position in the receiving buffer for the executing section to read

the received data is jumped to the position next to the cancel command (see Fig. 4, column 4 lines 40-46, and column 5 lines 39-64, reference shows that after a control data command, such as a cancel command, is executed the analyzer moves on to the next set of control and print commands).

7. Claims 6-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koakutsu and Kashiwazaki as applied to claim 2 above, and further in view of U.S. Patent No. 6504619 to Kageyama et al.

Regarding claim 6, Kashiwazaki discloses a read-out task configured to read out the receiving data from the receiving buffer (see column 4 lines 40-49) and a main task configured to acquire the received data from the read-out task, the main task developing the print data into the image when the received data is the print data and executing the control command of the control data when the received data is the control data (see column 4 line 40-column 5 line 33), the pre-processing section being realized by a pre-read execute processing incorporated in the main task, which reads out the received data from the receiving buffer, when the cancel command is found from the received data, to cancel the print based on the print data received prior to the cancel command (see column 4 lines 40-43 and column 5 lines 26-28 and 44-64).

Koakutsu and Kashiwazaki do not disclose expressly a read-out pointer, which after output, counts up the read-out pointer every time.

Kageyama discloses a read-out pointer, which after output, counts up the read-out pointer every time (see column 9 lines 16-23 and column 10 lines 5-19 and 40-43).

Regarding claims 8 and 11, Kashiwazaki discloses a read-out task configured to read out the receiving data from the receiving buffer (see column 4 lines 40-49) and a main task configured to acquire the received data from the read-out task, the main task developing the print data into the image when the received data is the print data and executing the control command of the control data when the received data is the control data (see column 4 line 40-column 5 line 33), the pre-processing section being realized by assigning a pre-read task to the central processing unit in a predetermined order of priorities and executing the pre-read task, the pre-read task reading out the received data from the receiving buffer, when the cancel command is found from the received data, to cancel the print based on the print data received prior to the cancel command (see column 4 lines 40-43 and column 5 lines 26-28 and 44-64).

Koakutsu and Kashiwazaki do not disclose expressly a read-out pointer, which after output, counts up the read-out pointer every time.

Kageyama discloses a read-out pointer, which after output, counts up the read-out pointer every time (see column 9 lines 16-23 and column 10 lines 5-19 and 40-43).

Koakutsu, Kashiwazaki, & Kageyama are combinable because they are from the same field of endeavor, print control utilizing print data control commands.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the use of pointers, which is well known in the art, to sequentially store and execute control and print data, as shown by Kageyama, with the system of Koakutsu and Kashiwazaki.

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The suggestion/motivation for doing so would have been to preserve the content of the command buffer and to reliably and accurately execute control and print commands (see column 6 lines 40-57 and column 9 lines 16-18 of Kageyama).

Therefore, it would have been obvious to combine Kageyama with Koakutsu and Kashiwazaki to obtain the invention as specified in claims 6, 8, and 11.

Regarding claims 7, 10, and 13, Kageyama further discloses wherein, if the cancel command has been detected by the pre-processing section, the read-out task moves the read-out pointer forward to the position next to the pre-read pointer (see column 9 lines 16-23 and column 10 lines 5-19 and 40-43).

Regarding claims 9 and 12, Kashiwazaki further discloses wherein the priority of assignment of the processing unit to the pre-read task is lower than the priorities to the read-out task and the main task (see column 4 lines 40-57, reference shows that execution of the control command takes priority over the reading of new input data).

8. Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koakutsu as applied to claim 1 above, and further in view of U.S. Patent No. 6804016 to Hashimoto et al.

Regarding claim 14, Koakutsu does not disclose expressly wherein the specific control command is a paper size designation command which designates a particular paper size for printing the print data received subsequently to the paper size designation command, the pre-processing section functioning upon detection of the

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paper size designation command to determine beforehand whether the print on a sheet of paper of the size designated by the paper size designation command is possible, and functioning upon the print being impossible to inform a user of that fact.

Hashimoto discloses wherein the specific control command is a paper size designation command which designates a particular paper size for printing the print data received subsequently to the paper size designation command, the pre-processing section functioning upon detection of the paper size designation command to determine beforehand whether the print on a sheet of paper of the size designated by the paper size designation command is possible, and functioning upon the print being impossible to inform a user of that fact (see column 33 lines 2-15).

Regarding claim 15, Koakutsu does not expressly disclose wherein the pre-processing section functions upon detection of the paper size designation command to determine beforehand whether the printer has a paper tray of the size designated by the paper size designation command and, if the printer has no paper tray of the size designated by the paper size designation command, to inform a user of that fact, and to determine beforehand whether the paper tray of the size designated by the paper size designation command contains a sheet of paper and, if the paper tray of the size designated by the paper size designation command has no paper, to inform the user of that fact.

Hashimoto discloses wherein the pre-processing section functions upon detection of the paper size designation command to determine beforehand whether the printer has a paper tray of the size designated by the paper size designation command

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and, if the printer has no paper tray of the size designated by the paper size designation command, to inform a user of that fact, and to determine beforehand whether the paper tray of the size designated by the paper size designation command contains a sheet of paper and, if the paper tray of the size designated by the paper size designation command has no paper, to inform the user of that fact (see column 13 lines 34-42 and column 33 lines 2-15).

Koakutsu & Hashimoto are combinable because they are from the same field of endeavor, print control utilizing control commands.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the commands for detecting the presence/absence of paper and paper size located in a printer input bin, which is well known in the art, as described by Hashimoto, with the system of Koakutsu.

The suggestion/motivation for doing so would have been to increase productivity and print accuracy and decrease printer down time and printing stoppage and failure due to paper outages and paper size discrepancies.

Therefore, it would have been obvious to combine Hashimoto with Koakutsu to obtain the invention as specified in claims 14-15.

9. Claims 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koakutsu and Hashimoto as applied to claim 14 above, and further in view of Kashiwazaki and Kageyama.

Regarding claim 16, Hashimoto discloses whether the print on a sheet of paper of the size designated by the paper size designation command is possible (see column 33 lines 2-15).

Koakutsu and Hashimoto do not disclose expressly a read-out task configured to read out the receiving data from the receiving buffer according to a read-out pointer, output them, and count up the read-out pointer every time, a main task configured to acquire the received data from the read-out task, the main task developing the print data into the image when the received data is the print data and executing the control command of the control data when the received data is the control data, the pre-processing section being realized by a pre-read execute processing incorporated in the main task, which reads out the received data from the receiving buffer according to a pre-read pointer, counts up the pre-read pointer every time, and functions, when the paper size designation command is found from the received data.

Kashiwazaki discloses a read-out task configured to read out the receiving data from the receiving buffer (see column 4 lines 40-49) and a main task configured to acquire the received data from the read-out task, the main task developing the print data into the image when the received data is the print data and executing the control command of the control data when the received data is the control data (see column 4 line 40-column 5 line 33), the pre-processing section being realized by a pre-read execute processing incorporated in the main task, which reads out the received data from the receiving buffer (see column 4 lines 40-43 and column 5 lines 26-28 and 44-

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64), and informing a user of various messages and information (see column 5 line 67-column 6 line 2).

Kashiwazaki does not disclose expressly a read-out pointer, which after output, counts up the read-out pointer every time and whether the print on a sheet of paper of the size designated by the paper size designation command is possible.

Kageyama discloses a read-out pointer, which after output, counts up the read-out pointer every time (see column 9 lines 16-23 and column 10 lines 5-19 and 40-43).

Regarding claim 17, Hashimoto discloses whether the print on a sheet of paper of the size designated by the paper size designation command is possible (see column 33 lines 2-15).

Koakutsu and Hashimoto do not disclose expressly a read-out task configured to read out the receiving data from the receiving buffer according to a read-out pointer, output them, and count up the read-out pointer every time, a main task configured to acquire the received data from the read-out task, the main task developing the print data into the image when the received data is the print data and executing the control command of the control data when the received data is the control data, the pre-processing section being realized by assigning a pre-read task to the central processing unit in a predetermined order of priorities and executing the pre-read task, the pre-read task reading out the received data from the receiving buffer according to a pre-read pointer, counting up the pre-read pointer every time.

Kashiwazaki discloses a read-out task configured to read out the receiving data from the receiving buffer (see column 4 lines 40-49) and a main task configured to

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acquire the received data from the read-out task, the main task developing the print data into the image when the received data is the print data and executing the control command of the control data when the received data is the control data (see column 4 line 40-column 5 line 33), the pre-processing section being realized by assigning a pre-read task to the central processing unit in a predetermined order of priorities and executing the pre-read task, the pre-read task reading out the received data from the receiving buffer (see column 4 lines 40-43 and column 5 lines 26-28 and 44-64), and informing a user of various messages and information (see column 5 line 67-column 6 line 2).

Kashiwazaki does not disclose expressly a read-out pointer, which after output, counts up the read-out pointer every time and whether the print on a sheet of paper of the size designated by the paper size designation command is possible.

Kageyama discloses a read-out pointer, which after output, counts up the read-out pointer every time (see column 9 lines 16-23 and column 10 lines 5-19 and 40-43).

Koakutsu, Hashimoto, Kashiwazaki, & Kageyama are combinable because they are from the same field of endeavor, print control utilizing print data control commands.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to combine the read-out task, main task, and pre-processing section, as described by Kashiwazaki, and the use of pointers, which is well known in the art, to sequentially store and execute control and print data, as described by Kageyama, with the system of Koakutsu and Hashimoto.

The suggestion/motivation for doing so would have been to preserve the content of the command buffer and to reliably and accurately execute control and print commands (see column 6 lines 40-57 and column 9 lines 16-18 of Kageyama) and to increase productivity and print accuracy and decrease printer down time and printing stoppage and failure due to paper outages and paper size discrepancies.

Therefore, it would have been obvious to combine Kashiwazaki and Kageyama with Koakutsu and Hashimoto to obtain the invention as specified in claims 16-17.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark R. Milia whose telephone number is (571) 272-7408. The examiner can normally be reached M-F 8:00am-4:00pm.

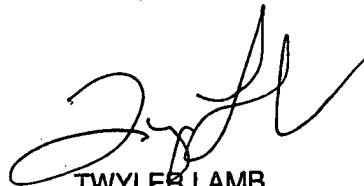
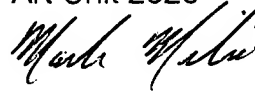
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler M. Lamb can be reached at (571) 272-7406. The fax number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MRM

Mark R. Milia
Examiner
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SUPERVISORY PATENT EXAMINER